AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0048] with the following amended paragraph:

Boundary Scan Cell (BSC) to operate with AC signals according to a specific embodiment of the present invention. In a first block 702, the transmitting BSC 502 detects whether it is functioning in AC JTAG mode. If the transmitting BSC 502 is not in AC JTAG mode, the reference clock input line *refclk* to the XOR logic gate 508 is held low in a block 704, thereby allowing the BSC to drive the same DC pattern as is present in the update register of the transmitting BSC. In block 706, if the transmitting BSC 502 is in AC JTAG mode, the transmitting BSC 502 is reset as described above. In block 708, the transmitting BSC generates AC signal based on the value of the transmitting BSC and the active reference clock as described above. The AC signal is then sent out to the receiving BSC 602 in block 710. Examples of AC signals produced by the transmitting BSC 602 are illustrated in FIG. 9A and 9B.